

“Energy Efficiency is Fastest,
Cheapest, Cleanest”

True— But What Does That Mean?



ILLINOIS DEPARTMENT OF COMMERCE AND ECONOMIC OPPORTUNITY
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Efficiency is Fast, But How Fast?

- Supply Side Measures: LNG by 2012?
 - New pipelines similarly long development horizons
- Demand Side Measures:
 - Winter 2005-2006: Modest Opportunities
 - Winter 2006-2007: Significant Opportunities if funding commitments are made within 2-3 months
 - Winter 2007-2008+: Large Opportunities if commitments made within the next 6-9 months

Winter 2005-2006

- DHFS: Weatherization Opportunities
- MEEA: Appliance Opportunities
- DCEO: Educational Opportunities
 - Currently planning workshops at Community Colleges across Illinois (49 campuses)
 - Expecting to do Big-Box Retailer education (MEEA RFP pending)
 - Coupon campaign for insulation, etc., planned for \$300,000, but optimized at \$1,000,000

Winter 2006-2007 and Winter 2007-08+

- Significant Opportunities to Expand DCEO flagship EE programs if provided certainty
- Case Study: DCEO Energy Efficient Affordable Housing Construction Program
 - Current FY06 Funding \$900,000
 - Potential FY06 Expansion to \$2 million, with projects completed in CY 2006 if funding can be advertised in next several months
 - Potential FY07 Expansion to \$5-6 million, covering most of target sector in state
- Also:
 - Small Business Smart Energy
 - Manufacturing Energy Efficiency Program
 - Home Performance with Energy Star
 - Energy Star Homes

Why Do We Need Efficiency Programs With Natural Gas at \$14?

- Price is a powerful signal but key sectors are:
 - cash-poor
 - removed from price signals
 - using dysfunctional analytical tools
 - insulated by long-term contracts
 - not benefiting from marketing of efficiency
- Ignoring these sector problems brings human and economic costs

Targets for Efficiency:

- Cash Poor:
 - Low Income Residential Sector
 - Higher-risk/ less credit-worthy businesses
- Removed From Price Signals (misdirected signals)
 - Commercial New Construction
 - Residential New Construction
 - Landlord/tenant

Targets for Efficiency:

- Dysfunctional Analytical Tools: the curse of “payback”
 - Payback analysis undervalues efficiency improvements but is very common benchmark
 - For Example— (SB\$E) East Moline Glass:
 - Recommended geothermal + lighting @ \$58,000
 - Annual Savings \$10,400, “payback” of 5.6 years
 - IRR 19.6%
 - Net Cash Flow with 10 year loan @6.75%:
 - Monthly Savings \$868 – Loan \$663 = Net \$205

Targets for Efficiency:

- Insulated by Long Term Contracts:
 - Many major users still enjoying lower-cost long term contracts that have not rolled over yet; they have uncertainty as to prices at time of expiration
- Marketing is Key:
 - SB\$E and MEEP provide technical assistance only
 - National Best Practices studies indicate incentive payments are desirable and effective
 - Cash incentives may not always be necessary but definitely help accelerate program reach and market transformation

Energy Efficiency and Potential Federal Actions

- Weatherization: Authorizations of \$500m for FY'06, \$600m FY'07, \$700m FY'08
 - FY'05 Approp. \$227m; current FY'06 ~\$240m
- State Energy Program: Authorization of \$100m
 - FY'05 Approp. \$42m; current FY'06 ~\$41m
- Energy Star Program: Authorization of \$100m
 - FY'05 Approp. \$55m; current FY'06 ~\$56.5

Conclusions

- EE is only option for winter 05-06 but relatively modest potential
- EE has much larger potential for future years if clear signal is sent soon
- Efficiency Programs will be necessary for many sectors even with \$14 natural gas
 - Because some sectors are:
 - cash-poor
 - removed from price signals
 - using dysfunctional analytical tools
 - insulated by long-term contracts
 - not benefiting from marketing of efficiency